

Amendment
Serial No.09/843,499

Docket No.US010118

IN THE CLAIMS:

Kindly replace the claims of record with the following full set of claims:

1. (Currently amended) A method for selecting dominant multi-media cues from a number of video segments, comprising the steps of:
 - calculating a multi-media information probability for each frame of the video segments;
 - dividing each of the video segments into sub-segments using pre-selected multi-media characteristic;
 - calculating a probability distribution of multi-media information for each of the sub-segments using the multi-media information for each frame;
 - combining the probability distribution for each sub-segments segment by averaging the probability distribution for each sub-segment to form a combined probability distribution; and
 - selecting the multi-media information having the highest combined probability in the combined probability distribution as the dominant multi-media cues.
2. (Original) The method of claim 1, wherein the video segments are selected from a group consisting of commercial segments and program segments.
3. (Original) The method of claim 1, wherein the dividing video segments into sub-segments is performed using close caption information included in the video segments.

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4. (Currently amended) The method of claim 1, wherein the ~~combining the probability distribution for each sub-segments is performed by the operation selected from a group consisting of an average~~ [[or]] is selected from the group consisting of: a straight average and a weighted average.

5. (Original) The method of claim 1, wherein the combined probability distribution is formed from probability distributions of sub-segments of multiple programs.

6. (Original) The method of claim 1, which further includes initially selecting multi-media cues characteristic of a given TV program type or commercial.

7. (Currently amended) A method of segmenting and indexing video, comprising the steps of:

selecting program segments from the video;

dividing the program segments into program sub-segments; and

performing genre-based indexing on the program sub-segments using pre-selected multi-media characteristic of a given genre of program, comprising the steps of:

calculating a probability distribution of multi-media information for each of the sub-segments using the multi-media information for each frame;

combining the probability distribution for each sub- segment by averaging the probability distribution for each sub-segment to form a combined probability distribution;
and

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selecting the multi-media information having the highest combined probability in the combined probability distribution as the dominant multi-media cues.

8. (Original) The method of claim 7, wherein the selecting program segments is performed using multi-media cues characteristic of a given type of video segment.

9. (Original) The method of claim 7, wherein the dividing the program segments into program sub-segments is performed according to closed caption information included in the program segments.

10. (Currently amended) The method of claim 7, wherein the genre-based indexing further comprises the steps of includes:

comparing the multi-media cues characteristic of a given genre of program to each of the program sub-segments; and

inserting a tag into one of the program sub-segments if there is a match between one of the multi-media cues and sub-segments.

11. (Original) The method of claim 7, which further include performing object-based indexing on the program sub-segments.

12. (Previously presented) A method of storing video, comprising the steps of:

pre-processing the video;

selecting program segments from the video;

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dividing the program segments into program sub-segments;
performing genre-based indexing on the program sub-segments using pre-selected multi-media characteristic of a given genre of program to produce indexed program sub-segments, wherein the genre-based indexing comprises the step of:
calculating a probability distribution of multi-media information for each of the sub-segments using the multi-media information for each frame;
combining the probability distribution for each sub-segment by averaging the probability distribution for each sub-segment to form a combined probability distribution;
selecting the multi-media information having the highest combined probability in the combined probability distribution as the dominant multi-media cues; and
storing the indexed program sub-segments.

13. (Currently amended) The method of claim 12, wherein the genre-based indexing further comprises the steps of:

~~includes:~~ comparing the multi-media cues characteristic of a given genre of program to each of the program sub-segments; and

inserting a tag into one of the program sub-segments if there is a match between one of the multi-media cues and sub-segments.

14. (Original) The method of claim 12, which further include performing object-based indexing on the program sub-segments.

15. (Currently amended) A device for storing video, comprising:

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a pre-processor for pre-processing the video;

a segmenting and indexing unit for selecting program segments from the video, dividing the program segments into program sub-segments and performing genre-based indexing on the program sub-segments using pre-selected multi-media characteristic of a given genre of program to produce indexed program sub-segments, said genre-based indexing comprising the steps of:

calculating a probability distribution of multi-media information for each of the sub-segments using the multi-media information for each frame;

combining the probability distribution for each sub-segment by averaging the probability distribution for each sub-segment to form a combined probability distribution;

selecting the multi-media information having the highest combined probability in the combined probability distribution as the dominant multi-media cues; and

a storage device for storing the indexed program sub-segments.

16. (Currently amended) The device method of claim 15, wherein the genre-based indexing further comprises the steps of:~~includes~~

comparing the multi-media cues characteristic of a given genre of program to each of the program sub-segments; and

inserting a tag into one of the program sub-segments if there is a match between one of the multi-media cues and sub-segments.

17. (Currently amended) The device method of claim 15, wherein the segmenting and indexing unit further performs object-based indexing on the program sub-segments.

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18. (New) The method of claim 7, wherein the average is selected from the group consisting of: a straight average and a weighted average.

19. (New) The method of claim 12, wherein the average is selected from the group consisting of: a straight average and a weighted average.

20. (New) The device of claim 15, wherein the average is selected from the group consisting of: a straight average and a weighted average.